

### **DETAILED ACTION**

1. The Action is responsive to Applicant's communication-power of attorney filed January 28, 2010 and appeal brief filed January 19, 2010.

2. After a thorough search on prior art, examination of prosecution of the instant application, and in light of the following:

Prior art made of record;

Interview with Applicant conducted on March 22, 2010;

An Examiner's Amendment authorized by Applicant on March 22, 2010; and

A update search on prior art conducted in domains (EAST, NPL-ACM, Google, NPL-IEEE, etc);

**Claims 1-3, 5, 7-10, 21-23, 25, 27-30, 41-42 and 53-57 (renumbered to 1-23) are allowed.**

3. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn.

### ***Examiner's Amendments***

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee. Authorization for this Examiner's Amendments, listed below was given on March 22, 2010 in a telephone interview with Ms. Dawn-Marie Bey, Registration Number 44,442.

4.1. Please amend claims 1, 4-7, 21, 24-27 and 42 as follows:

1. (Currently Amended) A range-conversion method comprising:

receiving medical data records, wherein each of the medical data records includes at least a portion of a corresponding patient's medical history that includes one or more data fields and a field value associated with each data field;

identifying one or more of said data fields as a range-based data field; and

defining, by an authorized user who has authorized access to the medical data records, a plurality of text-based range descriptors, wherein each text-based range descriptor is associated with a range of field values for one of the range-based data fields; and

generating a text-string for each of the medical data records, wherein the text-string includes one or more text-based data descriptors, such that each data descriptor includes:

a field descriptor that defines a specific data field within the each of the medical data records to which the text-string is related, and

a value descriptor that defines the field value associated with the specific data field;

wherein a specific data record includes a range-based data field, the range-conversion method further comprising:

incorporating, as the value descriptor of the text-string associated with the specific data record, the text-based range descriptor that is associated with the field value of the range-based data field included in the specific data record.

4. (Canceled)

5. (Currently Amended) The range-conversion method of claim [[4]] 1 wherein each text-string further includes a record identifier that identifies the data record to which the text-string is related.

6. (Canceled)

7. (Currently Amended) The range-conversion method of claim [[6]] 1 wherein each data descriptor includes one or more starting characters, one or more separator characters, and one or more ending characters.

21. (Currently Amended) A computer program product residing on a computer readable medium having a plurality of instructions stored thereon which, when executed by the processor, cause that processor to:

receive medical data records, wherein each of the medical data records includes at least a portion of a corresponding patient's medical history that includes one or more data fields and a field value associated with each data field;

receive user selection of one or more of said data fields as a range-based data field;  
and

receive user definition of a plurality of text-based range descriptors, wherein each

text-based range descriptor is associated with a range of field values for the selected one or more of the range-based data fields; and

generate a text-string for each of the medical data records, wherein the text-string includes one or more text-based data descriptors, such that each data descriptor includes:

a field descriptor that defines a specific data field within the each of the medical data records to which the text-string is related, and

a value descriptor that defines the field value associated with the specific data field;

wherein a specific data record includes a range-based data field, the computer program product of claim further comprising instructions for:

incorporating, as the value descriptor of the text-string associated with the specific data record, the text-based range descriptor that is associated with the field value of the range-based data field included in the specific data record.

24. (Canceled)

25. (Currently amended) The computer program product of claim [[24]] 21 wherein each text-string further includes a record identifier that identifies the data record to which the text-string is related.

26. (Canceled)

27. (Currently amended) The computer program product of claim of claim [[26]] 21 wherein each data descriptor includes one or more starting characters, one or more separator characters, and one or more ending characters.

41. (Currently amended) A searching system comprising:

a server system including a computer processor and associated memory, the server system having a database that includes a plurality of medical data records, wherein each of the medical data records includes at least a portion of a corresponding patient's medical history;

wherein the server system is configured to:

receive medical data records, wherein each data record includes one or more data fields and a field value associated with each data field, and wherein said field value includes a patient-specific value [~or the corresponding patient;

identify one or more of said data fields as a range-based data field that can accept any numeric value within a range of valid numeric values; and

define a plurality of text-based range descriptors, wherein each text-based range descriptor is associated with a range of field values for one of the range-based data fields, wherein each of the text-based range descriptors represents a corresponding medical status of the patient reflected by field values contained in the range of field values associated with the text- based range descriptor; and

generate a text-string for each of the medical data records, wherein the text-string

includes one or more text-based data descriptors, such that each data descriptor includes:

a field descriptor that defines a specific data field within the each of the medical data records to which the text-string is related, and

a value descriptor that defines the field value associated with the specific data field;

wherein a specific data record includes a range-based data field, the range-conversion method further comprising:

incorporating, as the value descriptor of the text-string associated with the specific data record, the text-based range descriptor that is associated with the field value of the range-based data field included in the specific data record.

***Reason for Allowable***

5. The following is the Examiner's statement of reasons for allowance:

In the Examiner's Office Action, the non-Final Rejection under 35 U.S.C. § 103 rejections was made mainly based on the reference: Lickiss et al.: "ORDER PROCESSING AND REPORTING SYSYTEM FOR TRLRCOMMUNICATIONS CARRIER SERVICES", U.S. Patent 6,104,798, filed February 12, 1998 and issued August 15, 2000, hereafter "Lickiss"; in view of Marchosky: "RECORD SYSTEM", U.S. Patent Application Publication 2003/0050803, filed 9/24/2002 and published 3/13/2003; and further in view of Pratt et al: "METHOD AND APPARATUS FOR ORGANIZING

AND USING INDEXES UTILIZING A SEARCH DECISION TABLE", U.S. Patent 6,772,141, filed December 14, 1999 and issued August 3, 2004, hereafter "Pratt".

In the appeal brief filed January 15, 2010, at Pages 22-23, Applicant argued that "dependent claim 6 recites "wherein a specific data record includes a range-based data field, the range-conversion method further comprising: incorporating, as the value descriptor of the text-string associated with the specific data record, the text-based range descriptor that is associated with the field value of the range-based data field included in the specific data record" (emphasis added). The applied combination of Lickiss, Marshosky, and Pratt fails to teach or suggest this further limitation of claim 6, as discussed below."

Concerning the above argument and a further review of the rejections, this Examiner is persuaded the subject matter of dependent claim 6 distinguishes from prior art. Based on the above consideration, an analysis of the detailed subject matter described suggests that the range-conversion of medical records as high-lighted below is distinguishes from prior art.

**defining, by an authorized user who has authorized access to the medical data records, a plurality of text-based range descriptors, wherein each text-based range descriptor is associated with a range of field values for one of the range-based data fields; and**

**generating a text-string for each of the medical data records, wherein the text-string includes one or more text-based data descriptors, such that each data descriptor includes:**

**a field descriptor that defines a specific data field within the each of the medical data records to which the text-string is related, and**

**a value descriptor that defines the field value associated with the specific data field;**

**wherein a specific data record includes a range-based data field, the range-conversion method further comprising:**

**incorporating, as the value descriptor of the text-string associated with the specific data record, the text-based range descriptor that is associated with the field value of the range-based data field included in the specific data record.**

An update search on prior art in domains (EAST, NPL-ACM, Google, NPL-IEEE, etc) has been conducted. The prior art searched and investigated in the domains (EAST, NPL-ACM, Google, NPL-IEEE, etc) do not fairly teach or suggest teaching of the subject matter as described by the combined limitation in each of the independent claims 1, 21 and 41.

The dependent Claims in the groups (2-3, 5, 7-10 and 53-55), (22-23, 25, 27-30 and 56-57) and (42), respectively depending upon claims 1, 21 and 41, respectively, also distinct from the prior art.



After a search and a thorough examination of the present Application and in light of the prior arts, Claims **1-3, 5, 7-10, 21-23, 25, 27-30, 41-42 and 53-57 (renumbered to 1-23)** are allowed.

### ***Conclusions***

6. Any comments considered necessary by Applicants must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

### ***Contact Information***

7. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to KUEN S. LU whose telephone number is (571)-272-4114. The examiner can normally be reached on Monday-Friday (8:00 am-5:00 pm). If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Pierre Vital can be reached on (571)-272-4215. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for Page 13 Published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system; contact the Electronic Business

Art Unit: 2156

Center (EBC) at 866-217-9197 (toll free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, please call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KUEN S. LU /Kuen S Lu/

Art Unit 2156

Primary Patent Examiner

March 26, 2010